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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/087,197	03/01/2002	Ajay Kumar	5681-11800	8610

7590

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EXAMINER

HWANG, JOON H

ART UNIT

PAPER NUMBER

2162

DATE MAILED: 06/02/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/087,197

Applicant(s)

KUMAR ET AL.

Examiner

Joon H. Hwang

Art Unit

2162

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 16 May 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

### **DETAILED ACTION**

1. The applicants requested reconsiderations in the amendment received on 5/16/05. Applicant's request for reconsideration of the finality of the rejection of the last Office action is persuasive and, therefore, the finality of that action is withdrawn. However, upon further consideration, a new ground(s) of rejection is made in view of Montero et al. (U.S. Publication No. 2002/0143958 A1).

The pending claims are 1-20.

### ***Claim Rejections - 35 USC § 102***

2. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.
3. Claims 1-4, 8-11, and 15-17 are rejected under 35 U.S.C. 102(e) as being anticipated by Montero et al. (U.S. Publication No. 2002/0143958 A1).

With respect to claim 1, Montero teaches a distributed store comprising a primary state of session data configured for access by a plurality of application servers, wherein the session data comprises a plurality attributes (i.e., a common session database, fig. 1, sections 18-19 on page 2, section 26 on pages 2 and 3, and section 35 on page 3). Montero teaches a first application server of the plurality of application servers, comprising a client state of the session data accessible to processes executing within the application server, wherein the first application server is configured to track accesses of the attributes of the client state (fig. 1, abstract, section 11 on page 1, sections 14 and 20 on page 2, sections 35-36 on page 3, and section 46 on page 4).

Art Unit: 2162

Montero teaches the distributed store configured to synchronize the primary state with the client state according to the tracked accessed attributes (section 26 on pages 2-3)

With respect to claim 2, Montero teaches the first application server is configured to store information identifying the accessed attributes (section 26 on pages 2-3 and sections 42 and 46 in col. 4).

With respect to claim 3, Montero teaches the first application server is further configured to track mutable attributes and not track immutable attributes (sections 44 and 46 on page 4).

With respect to claim 4, Montero teaches the distributed store is further configured to synchronize only mutable attributes (section 44 on page 4).

The limitations of claims 8-9, 11, 15, and 17 are rejected in the analysis of claim 1 above, and these claims are rejected on that basis.

The limitations of claims 10 and 16 are rejected in the analysis of claim 2 above, and these claims are rejected on that basis.

### ***Claim Rejections - 35 USC § 103***

4. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

5. Claims 5, 12, and 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Montero et al. (U.S. Publication No. 2002/0143958 A1) in view of Bauer et al. (U.S. Patent No. 5,884,325).

With respect to claim 5, Montero teaches the distributed store is configured to update the primary state with the subset of the accessed attributes that have been modified (section 26 on pages 2-3). Montero does not explicitly disclose performing a comparison of the tracked accessed attributes and a benchmark of the session data comprising a previous version of the one or more attributes. However, Bauer teaches performing a comparison of the tracked accessed attributes and a before-image data (a benchmark) comprising a previous version of the one or more attributes to determine a subset of the tracked accessed attributes that are modified in respect to the before-image data (the benchmark) at a client node and the central database of the server is configured to update the primary state with the subject of the accessed attributes that have been modified to synchronize the primary state with the client state (line 50 in col. 1 thru line 67 in col. 2, lines 31-50 in col. 3, lines 22-67 in col. 9, and lines 1-5 in col. 10). Therefore, based on Montero in view of Bauer, it would have been obvious to one having ordinary skill in the art at the time the invention was made to utilize the teaching of Bauer to the system of Montero in order to detect data modifications, thereby minimizing the cost of synchronization.

The limitations of claims 12 and 18 are rejected in the analysis of claim 5 above, and these claims are rejected on that basis.

6. Claims 6, 13, and 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Montero et al. (U.S. Publication No. 2002/0143958 A1) in view of Bauer et al. (U.S. Patent No. 5,884,325), and further in view of Morris (U.S. Patent No. 5,813,017).

With respect to claim 6, Montero and Bauer disclose the claimed subject matter as discussed above. Bauer further discloses many other comparison methods for determining modifications since a last synchronization (lines 42-53 in col. 9). Montero and Bauer do not explicitly disclose a binary comparison. However, Morris discloses a binary comparison for determining differences for database synchronization (abstract and line 47 in col. 11 thru line 13 in col. 12). Therefore, based on Montero in view of Bauer, and further in view of Morris, it would have been obvious to one having ordinary skill in the art at the time the invention was made to utilize the teachings of Morris to the system of Montero in order to determine differences of two versions of data, thereby performing an effective database synchronization.

The limitations of claims 13 and 19 are rejected in the analysis of claim 6 above, and these claims are rejected on that basis.

7. Claims 7, 14, and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Montero et al. (U.S. Publication No. 2002/0143958 A1) in view of Bauer et al. (U.S. Patent No. 5,884,325), and further in view of Lin et al. (U.S. Patent No. 6,546,135).

With respect to claim 7, Montero and Bauer disclose the claimed subject matter as discussed above. Bauer further discloses many other comparison methods for

Art Unit: 2162

determining modifications since a last synchronization (lines 42-53 in col. 9). Montero and Bauer do not explicitly disclose an object graph comparison. However, Lin discloses comparing data differences using DAG (directed acyclic graph) representation, which teaches an object graph comparison (abstract, line 40 in col. 7 thru line 14 in col. 8, and fig. 5). Therefore, based on Montero in view of Bauer, and further in view of Lin, it would have been obvious to one having ordinary skill in the art at the time the invention was made to utilize the teachings of Lin to the system of Montero in order to determine differences of two versions of data, thereby performing an effective database synchronization.


The limitations of claims 14 and 20 are rejected in the analysis of claim 7 above, and these claims are rejected on that basis.

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Joon H. Hwang whose telephone number is 571-272-4036. The examiner can normally be reached on 9:30-6:00(M~F).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, JOHN E BREENE can be reached on 571-272-4107. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Art Unit: 2162

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Joon Hwang   
Patent Examiner  
Technology Center 2100

5/31/05

  
JEAN M. CORRIELUS  
PRIMARY EXAMINER